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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/748,088	12/30/2003	Mikko Jaakkola	KOLS.083PA	6864

7590 05/16/2006

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EXAMINER	
STEIN, JULIE E	

ART UNIT	PAPER NUMBER
2617	

DATE MAILED: 05/16/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/748,088	JAAKKOLA ET AL.	
	Examiner	Art Unit	
	Julie E. Stein, Esq.	2617	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *08 February 2006*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-27* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-27* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *30 December 2003* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

1. The Art Unit location of your application in the USPTO has changed. To aid in correlating any papers for this application, all further correspondence regarding this application should be directed to Art Unit 2617.

Response to Amendment

2. In view of the amendment to the specification, the objection to the specification is withdrawn.

3. In view of the amendments to claim 21, the objection and rejection under 35 USC 112, second paragraph to claim 21 are withdrawn.

Claim Objections

4. Claim 22 is objected to because of the following informalities: "states" should be "state". Appropriate correction is required.

Claim Rejections - 35 USC § 101

5. 35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

6. Claims 21 and 26 to 27 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. Claims 21 and 26 to 27 are directed to a computer program *product*, which is non-statutory subject matter. See, MPEP, sec. 2106 and "Interim Guidelines for Examinations of Patent Application for Patent Subject Matter Eligibility."

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

8. Claims 1-4, 8-14, 19, 21, 23, 25, and 27 are rejected under 35 U.S.C. 103(a) as obvious over U.S. Patent No. 6,381,468 to Larsen et al. in view of UK Patent Application GB 2289191 to "Motorola".

Larsen teaches all the steps of independent claim 1, including a method in a mobile terminal, wherein a user interface component (Figure 3 and column 1, lines 5 to 8 and lines 45 to 51, the user interface is connected to a controller) of the terminal may be set to an inactive state or to an active state (Figure 4, screen shot 20 and others, respectively), the method comprising:

checking the state of the user interface component (column 1, lines 45 to 51 and column 3, line 64 to column 4, line 10 and Figure 8).

However, Larsen does not teach a method of applying a handover algorithm to the mobile terminal, wherein the handover algorithm is configured to select one of at least two available channels to be used for a connection from the mobile terminal, or that the method comprises applying the handover algorithm only when the current state of the user interface component is active. But Motorola does teach a handover method

in a mobile terminal, which uses a handover algorithm. See abstract. In addition the handover algorithm in Motorola is configured to select one of at least two available channels, for example, when a mobile station is near overlapping coverage areas. See page 3, lines 5 to 11. Furthermore, Motorola teaches that handover occurs while calls are in progress or the mobile phone is active. See page 1, lines 22 to 28.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to use the mobile phone of Larsen including a controller connected to a user interface with the handover method of Motorola to achieve Applicant's claimed invention because Larsen teaches a mobile phone in which the state/activity in the phone and the display are checked, including call activity (Larsen, column 3, line 64 to column 4, line 2 and Figures 4-7) and Motorola uses a mobile phone to apply a handover algorithm when the mobile phone is actively in a calling state (Motorola, page 1, lines 23 to 28).

In addition, Larsen teaches that the mobile phone changes states for non-user events, such as changes in antenna conditions or status changes during call set-up. See Larson, column 4, lines 8 to 10. Also, Motorola teaches that when mobile phones reach the boundaries of communications systems during calls, handover needs to be made in order to have continuous calls. Therefore, it would have been further obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Larsen with the teachings of Motorola because the mobile phone of Larsen would have registered the changes in signal strength and boundary station messages (column 6, lines 38 to 53, the phone monitors the base stations when idle and monitors

the keypad, but if on a call or a state change then it also monitors/changes the display (and a call is required for handover by definition—see "handoff" in Newton's Telecom Dictionary only being used for evidence)) as it moved closer to the boundary of two overlapping service areas during a call and would have applied the handover algorithm of Motorola in order to continue the current call uninterrupted (Motorola, Figure 2).

It is noted that there is no requirement in independent claim 1 of an order or time to the claimed steps, so no order/time has been so interpreted.

The rejection of claim 1 is hereby incorporated and the same reasoning is applied. Larsen teaches all the elements of independent claim 9, including a mobile terminal comprising a user interface (Figure 3 and column 1, lines 5 to 8 and lines 45 to 51, the user interface is connected to a controller), a user interface component of the terminal being adjustable in an inactive state or in an active state (Figure 4, screen shot 20 and others, respectively), wherein the terminal is configured to check the state of the user interface component (column 1, lines 45 to 51 and column 3, line 64 to column 4, line 10 and Figure 8).

However, Larsen does not teach a mobile terminal comprising a handover algorithm wherein if the current state of the user interface component is active, the terminal is configured to apply the handover algorithm configured to select one of the at least two available channels to be used for a connection from the mobile terminal. But, as discussed above Motorola does teach a mobile terminal, which uses a handover algorithm as described above.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to use the mobile phone of Larsen including a controller connected to a user interface with the handover method of Motorola to achieve Applicant's claimed invention because Larsen teaches a mobile phone in which the state/activity in the phone and the display are checked, including call activity (Larsen, column 3, line 64 to column 4, line 2 and Figures 4-7) and Motorola uses a mobile phone to apply a handover algorithm when the mobile phone is actively in a calling state (Motorola, page 1, lines 23 to 28).

The rejections of claims 1 and 9 are hereby incorporated and the same reasoning is applied. Larsen in view of Motorola teaches all the elements of independent claim 21, including a computer program product program code stored on a computer readable medium for controlling a mobile terminal comprising a user interface (see above) and a handover algorithm (see above) by executing the program code in a processor of the terminal (see above), wherein program code comprises a program code portion for causing the terminal to check the state of the user interface component (see above), and a program code portion for causing the terminal if the current state of the user interface component is active (see above), to apply the handover algorithm configured to select one of the at least two available channels to be used for a connection from the mobile terminal (see above).

Larsen in view of Motorola also teaches all the steps/elements of claims 2 and 10, including wherein the checking of the state occurs in response to changing the state of the user interface component. See Larsen, Figure 8.

Larsen in view of Motorola also teaches all the steps/elements of claims 3 and 13, including wherein the checking of the state occurs in response to detecting a new available network resource. See Larsen, Figure 8 and corresponding description for changing state.

Larsen in view of Motorola also teaches all the steps/elements of claims 4 and 14, including wherein the checking of the state occurs in response to a need to initiate the handover algorithm. See Motorola, page 4, lines 5 to 35.

Larsen in view of Motorola also teaches all the steps/elements of claims 8 and 19, including wherein the handover algorithm determines a change between channels of different network technologies. Id.

Larsen in view of Motorola also teaches all the elements of claims 11 and 12, including wherein the terminal is configured to initiate the handover algorithm in response to the change from the inactive state to the active state. Larsen teaches that the mobile phone changes states for non-user events, such as changes in antenna conditions or status changes during call set-up. See Larson, column 4, lines 8 to 10. Also, Motorola teaches that when mobile phones reach the boundaries of communications systems during calls, handover needs to be made in order to have continuous calls. Therefore, it would have been further obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Larsen with the teachings of Motorola because the mobile phone of Larsen would have registered the changes in signal strength and boundary station messages (column 6, lines 38 to 53, the phone monitors the base stations when idle and monitors the keypad, but if on a

call or a state change then it also monitors/changes the display (and a call is required for handover by definition—see "handoff" in Newton's Telecom Dictionary only being used for evidence)) as it moved closer to the boundary of two overlapping service areas during a call and would have applied the handover algorithm of Motorola in order to continue the current call uninterrupted (Motorola, Figure 2).

Larsen in view of Motorola teaches all the steps/elements of dependent claims 23, 25, and 27, including wherein radio measurements are performed in response to the current state of the user interface component being active. See Motorola, Figure 1.

9. Claims 5, 15-16, 22, 24, and 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Larsen in view of Motorola and further in view of U.S. Patent No. 6,178,388 to Claxton.

Larsen in view of Motorola teaches all the steps of claim 5, except wherein the terminal comprises a body portion and a lid, which is connected to the body portion and can be moved with respect to the body portion, and wherein the state of the lid in relation to the body portion is checked. But, Claxton teaches that flip phones are a well known type of mobile phone in the art and that when flip phones are in a closed position (with the keypads covered) that they are in an inactive state. See column 1, lines 47 to 59. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made, to understand that flip phones are well known in the art as taught by Claxton and that the position of a flip phone would indicate the state of the user interface (including the keypad) as taught by Claxton and thus the position would be checked because the keypad is part of the user interface as taught by Larsen

(column 3, lines 12 to 13) and the keypad is in the lid as taught by Claxton (column 1, lines 47 to 59).

The rejection of claim 5 is hereby incorporated and the same reasoning is applied. Larsen in view of Motorola teaches all the steps of claims 15 and 16, except wherein the terminal comprises a first portion and a second portion movable with respect to the first portion, and the terminal is configured to check the state based on the position of the second portion with respect to the first portion and that the terminal comprises a body portion and a lid which is connected to the body portion and can be moved with respect to the body portion, and the terminal comprises a sensing arrangement for detecting the state of the lid. But Claxton teaches that flip phones are well known in the art and that when flip phones are in a closed position (the lid is down) that they are in an inactive state. See column 1, lines 47 to 59. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made, to understand that flip phones are well known in the art as taught by Claxton and that the position of a flip phone would indicate the state of the user interface (including the keypad) as taught by Claxton and thus the position would be checked because the keypad is part of the user interface as taught by Larsen (column 3, lines 12 to 13) and the keypad is in the lid as taught by Claxton (column 1, lines 47 to 59).

Larsen in view of Motorola and further in view of Claxton teach all the steps/elements of dependent claims 22, 24, and 26, including wherein checking the state of user interface component comprises checking the state of a mechanical user interface component. See Claxton, column 1, lines 47 to 59.

10. Claims 6 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Larsen in view Motorola and further in view of U.S. Patent Application Publication No. 2004/0204123 to Cowsky, III et al.

Larsen in view Motorola teaches all the steps/elements of claims 6 and 17 except, wherein the terminal comprises a keypad and a keypad locking functionality for locking the keypad, whereby the state of the keypad locking is checked. However, Cowsky teaches that it is well known in the art that mobile phones have keypads that may be locked and that when locked the phone is in idle or inactive mode. See paragraph 2. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made, to check the state of the keypad lock in order to determine the state of the user interface because as taught by Cowsky, if the keypad is locked, then the phone/user interface is idle (Id.).

11. Claims 7 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Larsen in view Motorola and further in view of U.S. Patent Application Publication No. 2004/0248594 to Wren, III.

Larsen in view Motorola teaches all the steps/elements of claims 7 and 18 except, wherein the terminal comprises a screen saver functionality, the state of which is detected, whereby the state of the user interface component is inactive when the screen saver functionality is applied and the state of the user interface component is active when the screen saver functionality is not applied. However, Wren teaches that it is well known that mobile phones have screen saver functionality and that when screen savers are used that the mobile phones/user interfaces are in an inactive state. See

paragraph 55. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made, to understand that to determine if the user interface was active, the screen saver could be checked because as taught by Wren, when the screen saver was in use the user interface was inactive and when the screen saver was not in use the user interface was active. See paragraph 55.

12. Claim 20 is rejected under 35 U.S.C. 103(a) as being unpatentable over Larsen in view Motorola and further in view of U.S. Patent No. 6,871,074 to Harris et al.

Larsen in view Motorola teaches all the elements of claim 20 except, wherein the terminal comprises a timer configured to determine the state of the user interface component as inactive after a predetermined time period has elapsed after the latest user activity. However, Harris teaches that it is well known in the art that after a user has used a mobile terminal, if a given time period has elapsed, then the mobile terminal is transitioned to an off/inactive state. See abstract. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made, to understand that it is well known to use a timer to determine the state of a mobile terminal as inactive after a predetermined time period has elapsed and that this would include the user interface because as taught by Harris this conserves battery power (Id.).

Response to Arguments

13. Applicant's arguments with respect to claims 1-27 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Julie E. Stein, Esq. whose telephone number is (571) 272-7897. The examiner can normally be reached on M-F (8:30 am-5:00 pm).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, George Eng can be reached on (571) 272-7495. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

JES

GEORGE ENG
SUPERVISORY PATENT EXAMINER